

**PRECONSTRUCTION ANALYSIS
EXTERRAN ENERGY SOLUTIONS, L.P.
WHITSON COMPRESSOR STATION
TUSCALOOSA COUNTY, ALABAMA
FACILITY NO. 413-0086
SMOP NOS. X012 – X017**

On August 22, 2011, the Air Division received complete Air Permit applications from Exterran Energy Solutions, L.P. (Exterran) for the proposed construction and operation of six replacement natural gas-fired reciprocating internal combustion engines at their existing Whitson Compressor Station located in Tuscaloosa County. The Whitson Compressor Station is currently a major source under Title V regulations and a major source under PSD regulations, but does not hold any PSD permits. Its Major Source Operating Permit (MSOP) was issued on October 6, 2009. After the replacement of all six reciprocating engines, this facility would be a synthetic minor source under Title V regulations and a minor source under PSD regulations. The proposed replacement engines would be issued SMOP Nos. X012 – X017.

Proposed Facility Operations

Exterran utilizes compressors to increase the pressure and continue the flow of natural gas (i.e. coalbed methane) that has been extracted from various wells. Each compressor is driven by a natural gas-fired reciprocating internal combustion engine. Exterran is proposing to replace all of the existing engines. This facility consists of three 1,680 Hp Waukesha 7044 GSI, 4-stroke, rich-burn natural gas-fired reciprocating engines with catalytic converters (Emission Unit Nos. 001 – 003); one 2,225 Hp Caterpillar G3608, 4-stroke, lean-burn natural gas-fired reciprocating engine (Emission Unit No. 004); two 1,478 Hp Waukesha 7042 GSI, 4-stroke, rich-burn natural gas-fired reciprocating engines with catalytic converters (Emission Unit Nos. 006 and 010). Exterran has proposed to replace these engines with six 1,380 Hp Caterpillar G3516B, 4-stroke, lean-burn natural gas-fired reciprocating engines with catalytic converters. All existing engines would be replaced over the course of several months. Two engines would be replaced in October of 2011, while the remaining four would be replaced two months later.

This facility also consists of two Natco Model 5B18-10 dehydrator heaters (Emission Unit Nos. 007 and 008); and one Natco Model 5B18-9 dehydrator heater (Emission Unit No. 009). Insignificant emission sources at this station include six compressor pad oil tanks (<1,000 gallons each), one glycol storage tank (<1,000 gallons), and one 1,680 gallon used oil emulsion storage tank.

Emissions

The pollutants of concern that would be emitted from the proposed engines are NO_x, CO, VOC, CO₂e, and formaldehyde. Emissions of other criteria pollutants and hazardous air pollutants from the engines were considered and deemed insignificant. Emissions from the proposed engines would be vented to an oxidizing catalytic converter to reduce CO, VOC, and formaldehyde emissions. Emission calculations for the proposed engines are included as Appendix A.

State Regulations

ADEM Admin. Code r. 335-3-4.01, “Control of Particulate Emissions: Visible Emissions”

The proposed engines would be subject to the State visible emission standard for stationary sources. Since the proposed engines would be fired with natural gas, they would be expected to be able to comply with this standard.

ADEM Admin. Code r. 335-3-4.03, “Fuel Burning Equipment”

Although the proposed engines would be fuel combustion sources, they would not be subject to any particulate matter (as TSP) emission limitation of ADEM Admin. Code r. 335-3-4 since they would not meet the definition of fuel burning equipment and would not be considered one of the process industries, general or specific.

ADEM Admin. Code r. 335-3-5.01, “Fuel Combustion”

Although the proposed engines would be fuel combustion sources, they would not be subject to any sulfur dioxide (SO₂) emission limitation of ADEM Admin. Code r. 335-3-5 since they do not meet the definition of fuel burning equipment.

Federal Regulations

PSD

The facility operations are not one of the 28 listed major source categories; and the facility is located in an attainment area for all criteria pollutants. Therefore, the major source thresholds of concern are 250 TPY for criteria pollutants and a combination of 250 TPY of any greenhouse gas (mass-basis) and 100,000 TPY of CO₂e. This facility is currently a major source for PSD. However, Exterran does not hold any PSD permits. After the proposed replacement of the existing engines with the six new compressor engines, the facility-wide uncontrolled potential emissions for all criteria pollutants would be <250 TPY and < 100,000 TPY for CO₂e; therefore, Exterran would become a minor source under PSD. This facility is not located within one mile of any other compressor stations owned/operated by Exterran. Therefore, its potential emissions would not be aggregated with other sources owned/operated by Exterran in accordance with the State’s sensible grouping policy to determine PSD status.

Title V

Exterran is currently a major source under Title V regulations because the potential emissions for both NO_x and CO exceed the 100 TPY major source threshold. It is not currently a major source for HAP because individual HAP potential emissions do not exceed 10 TPY (formaldehyde PTE ~ 7.66 TPY) and the total HAP potential emissions do not exceed 25 TPY (PTE ~ 11.88 TPY).

Using the NSPS emission standards for NO_x, CO, and VOC applicable to the six new 1,380 Hp Caterpillar G3516B, 4-stroke, lean-burn natural gas-fired reciprocating engines with catalytic converters, the facility-wide potential emissions of NO_x and VOC would be below the 100 TPY major source threshold for Title V, but the facility-wide potential emissions of CO would exceed 100 TPY. To remain below the major source threshold, Exterran requested that the new proposed compressor engines' emissions of CO be limited below the applicable NSPS limits (Exterran has requested a CO limit of 3.04 lb/hr) and emissions of formaldehyde limited to 0.29 lb/hr to remain below the 10 TPY HAP threshold. After the replacement of all the compressor engines, facility-wide potential *controlled* emissions of NO_x, CO, VOC, and formaldehyde would be 80.64 TPY, 80.41 TPY, 55.98 TPY, and 7.62 TPY, respectively. Therefore, Exterran would become a synthetic minor source under Title V regulations for both criteria and hazardous air pollutants.

National Emission Standards for Hazardous Air Pollutants (NESHAP) –Subpart ZZZZ

Any reciprocating internal combustion engine is an affected source under 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (the “RICE MACT”). The proposed engines would be considered new affected sources since they were constructed after June 12, 2006. According to §63.6590(c), any new stationary “RICE” located at an area source of HAP emissions must meet the requirements of the “RICE MACT” by meeting the requirements of 40 CFR 60, Subpart JJJJ. No further requirements would apply to the proposed engines under Subpart ZZZZ.

New Source Performance Standards (NSPS) Subpart JJJJ

The EPA promulgated 40 CFR Part 60 NSPS, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE) on January 18, 2008.

§60.4230(a)(4)(i) states that stationary SI ICE are subject to this subpart if construction commences after June 12, 2006, and the SI ICE is manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 Hp. Since the proposed engines were ordered (“construction commenced”) in March 2011 and were manufactured in June 2011, they would be subject to this subpart.

Emission Limitations

As specified in §60.4233(e), the proposed engines must each meet a NO_x emission standard of 1.0 g/HP-hr or 82 ppmvd at 15% O₂, a CO emission standard of 2.0 g/HP-hr or 270 ppmvd at 15% O₂, and a VOC emission standard of 0.7 g/HP-hr or 60 ppmvd at 15% O₂. According to §60.4234, Exterran must operate and maintain the proposed engines in a manner that meets these emission standards over the entire life of each engine. The proposed engines would not be EPA certified engines. Exterran would use an oxidation catalyst to meet the CO emission standard.

Compliance Requirements

§60.4243(b)(2)(ii) states that an owner or operator of a stationary SI ICE greater than 500 Hp must keep a maintenance plan, records of maintenance conducted on the proposed engines and must, to the extent practicable, maintain and operate the engines in a manner consistent with good air pollution control practices for minimizing emissions.

Testing Requirements

Performance test requirements are outlined in §60.4244. In accordance with §60.4243(b)(2)(ii), since all of the proposed engines are non-certified, Exterran would be required to perform an initial performance test for NO_x, CO, and VOC within 180 days of startup of the proposed engines. Also, Exterran would be required to perform subsequent performance tests every 8,760 hours of operation or every three years, whichever comes first, for all of the proposed engines.

Notification, Reports, and Records

§60.4245(a) requires that owners and operators of all stationary SI ICE that are subject to this Subpart keep records of all notifications submitted and all documentation supporting any notification. Records of all maintenance conducted on each engine must also be maintained. Also, §60.4245(c) requires that owners and operators of stationary SI ICE greater than 500 Hp must submit an initial notification as required in §60.7(a)(1). Exterran's application for the proposed engines would serve as their initial notification. In addition, §60.4245(d) requires that a copy of all performance tests be submitted within 60 days after the test has been completed. Records of all maintenance conducted on each engine must also be maintained. All records required under this Subpart must be retained for at least two years from the date of generation of each record and be readily available for inspection upon request.

Emission Monitoring

Exterran has proposed to demonstrate compliance with the CO emission rate by conducting periodic monitoring. The emission tests would be conducted with a portable analyzer on each engine at least every six months alternatively with the annual EPA reference method test that is required by NSPS Subpart JJJJ. In addition, a portable analyzer test shall be conducted following any major maintenance of the engines that may adversely impact emissions or replacement of the catalyst. All test reports would be recorded electronically and made available to Air Division personnel. Exterran would be required to notify the Air Division in writing within two days of determining that an engine was not in compliance with its CO emission limit as determined by the portable analyzer or EPA Reference Method 10. No testing for formaldehyde would be required because the testing for CO would be considered a valid surrogate for compliance with the formaldehyde limit.

Air Quality Impact

This facility is located in Tuscaloosa County, an attainment area for all criteria pollutants. It is located ~ 85 km from the Sipsey Wilderness Area, the nearest Class I Area. This facility would not be expected to have a significant impact on this area.

Public Comment

In accordance with ADEM Admin. Code r. 335-3-15-.05, the Air Division will initiate a 15-day public comment period in order to solicit public input regarding the Department's preliminary determination to issue the Synthetic Minor Operating Permits to Exterran.

Recommendations

I recommend that Synthetic Minor Operating Permit Nos. 413-0086-X012 – X017 be issued to Exterran for the installation of the six ,380 Hp Caterpillar G3516B, 4-stroke, lean-burn natural gas-fired reciprocating engines with catalytic converters (NSPS) pending the resolution of any public comment received.. I also recommend that no Air Permits be required for the three glycol dehydrators with reboilers since the potential emissions from each unit would be <0.5 TPY for each criteria and hazardous air pollutant.



Brandon Cranford

September 8, 2011

Date

APPENDIX A
EXTERRAN ENERGY SOLUTIONS L.P.
WHITSON COMPRESSOR STATION
413-0086-X012 – X017
EMISSION CALCULATIONS

Proposed Engines X012 – X017

1,380 Hp Caterpillar G3516B, 4-Stroke, Lean-Burn, Natural Gas-Fired Reciprocating Engine w/Catalytic Converter

Control Device: Emit Technologies Inc. Model No. ELH-4200Z-1416F-30CEO-241
Oxidation Catalyst
Removal Efficiency (%) CO: 93.00%
(Designed Rate) VOC: 50.0%
Formaldehyde: 76.0%

ALLOWABLE

NSPS, Subpart JJJJ, Emission Limitations:

NO_x: 1.0 g/Hp-hr (3.04 lb/hr or **13.33 TPY** @ 8760 hr/yr)
CO: 2.0 g/Hp-hr (6.09 lb/hr or **26.65 TPY** @ 8760 hr/yr)
VOC: 0.7 g/Hp-hr (2.13 lb/hr or **9.33 TPY** @ 8760 hr/yr)

Potential Emissions(uncontrolled)

NO_x: *Emissions Based on Manufacturer's Data*

3.04 lb	8760 hr	T	= 13.31 TPY x 6 engines = 79.86 TPY
hr	yr	2000 lb	

CO: *Emissions Based on Manufacturer's Data*

8.52 lb	8760 hr	T	= 37.32 TPY x 6 engines = 223.92 TPY
hr	yr	2000 lb	

VOC: *Emissions Based on Manufacturer's Data*

1.16 lb	8760 hr	T	= 5.08 TPY x 6 engines = 30.49 TPY
hr	yr	2000 lb	

PM₁₀/PM_{2.5}: *Emissions Based on AP-42 Emission Factors*

0.098 lb	8760 hr	T	= 0.43 TPY x 6 engines = 2.58 TPY
hr	yr	2000 lb	

SO₂: *Emissions Based on Ap-42 Emission Factors*

0.006 lb	8760 hr	T
hr	yr	2000 lb

 = **0.03 TPY x 6 engines = 0.18 TPY**

Formaldehyde: *Emissions Based on Manufacturer's Data*

1.22 lb	8760 hr	T
hr	yr	2000 lb

 = **5.34 TPY x 6 engines = 32.04 TPY**

Potential Emissions Controlled

NO_x: *Emissions Based on Manufacturer's Data*

3.04 lb	8760 hr	T
hr	yr	2000 lb

 = **13.31 TPY x 6 engines = 79.86 TPY**

CO: *Emissions Based on Manufacturer's Data*

3.04 lb	8760 hr	T
hr	yr	2000 lb

 = **13.31 TPY x 6 engines = 79.86 TPY**

VOC: *Emissions Based on Manufacturer's Data*

0.098 lb	8760 hr	T
hr	yr	2000 lb

 = **3.55 TPY x 6 engines = 21.30 TPY**

PM₁₀/PM_{2.5}: *Emissions Based on Ap-42 Emission Factors*

0.115 lb	8760 hr	T
hr	yr	2000 lb

 = **0.43 TPY x 6 engines = 2.58 TPY**

SO₂: *Emissions Based on AP-42 Emission Factors*

0.006 lb	8760 hr	T
hr	yr	2000 lb

 = **0.03 TPY x 6 engines = 0.18 TPY**

Formaldehyde: *Emissions Based on Manufacturer's Data*

$$\frac{0.29 \text{ lb}}{\text{hr}} \times \frac{8760 \text{ hr}}{\text{yr}} \times \frac{T}{2000 \text{ lb}} = 1.27 \text{ TPY} \times 6 \text{ engines} = 7.62 \text{ TPY}$$

Existing Facility-Wide Controlled Emissions Summary (Expressed in TPY)

Unit	NO _x	CO	VOC	Formaldehyde
1,680 Hp Waukesha w/cc (001)	48.66	48.66	5.83	0.81
1,680 Hp Waukesha w/cc (002)	48.66	48.66	5.83	0.81
1,680 Hp Waukesha w/cc (003)	48.66	48.66	5.83	0.83
2,225 Hp Caterpillar (004)	15.02	53.70	19.32	4.28
1,478 Hp Waukesha w/cc (006)	46.38	32.11	2.15	0.71
3 glycol dehydrators (007 - 009)	0.66	0.55	-----	-----
1,478 Hp Waukesha w/cc (010)	48.53	33.60	2.58	0.22
Existing Facility-Wide Totals	256.57	265.94	41.54	7.66

**Proposed Facility-Wide Controlled Emissions Summary (Expressed in TPY)
without Controls**

Unit	NO _x	CO	VOC	Formaldehyde
1,380 Hp Caterpillar (X012)	13.31	37.32	5.08	5.34
1,380 Hp Caterpillar (X013)	13.31	37.32	5.08	5.34
1,380 Hp Caterpillar (X014)	13.31	37.32	5.08	5.34
1,380 Hp Caterpillar (X015)	13.31	37.32	5.08	5.34
1,380 Hp Caterpillar (X016)	13.31	37.32	5.08	5.34
1,380 Hp Caterpillar (X017)	13.31	37.32	5.08	5.34
3 glycol dehydrators (007 - 009)	0.66	0.55	-----	-----
Proposed Totals	80.52	224.47	30.48	32.04

**Proposed Facility-Wide Controlled Emissions Summary (Expressed in TPY) with
Controls**

Unit	NO _x	CO	VOC	Formaldehyde
1,380 Hp Caterpillar (X012)	13.31	13.31	3.55	1.27
1,380 Hp Caterpillar (X013)	13.31	13.31	3.55	1.27
1,380 Hp Caterpillar (X014)	13.31	13.31	3.55	1.27
1,380 Hp Caterpillar (X015)	13.31	13.31	3.55	1.27
1,380 Hp Caterpillar (X016)	13.31	13.31	3.55	1.27
1,380 Hp Caterpillar (X017)	13.31	13.31	3.55	1.27
3 glycol dehydrators (007 - 009)	0.66	0.55	-----	-----
Proposed Totals	80.52	80.41	21.30	7.62

*Exterran has requested to limit the CO emissions of this unit to 3.04 lb/hr to remain below 100 TPY.

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: EXTERRAN ENERGY SOLUTIONS, L.P.
FACILITY NAME: WHITSON COMPRESSOR STATION
LOCATION: WHITSON, TUSCALOOSA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
413-0086-X012	1,380 Hp Caterpillar G3516B, 4-Stroke, Lean-Burn, Natural Gas-fired Reciprocating Engine with an Oxidizing Catalytic Converter (NSPS, Subpart JJJJ)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE:

**EXTERRAN ENERGY SOLUTIONS, LP
WHITSON COMPRESSOR STATION
TUSCALOOSA COUNTY, ALABAMA
PERMIT NO. 413-0086-X012
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. Each point of emission will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
5. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shutdown shall be reported to the Department at least 24 hours prior to the planned shutdown, unless accompanied by the immediate shutdown of the emission source.
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants.

Particulates	()	Carbon Monoxide (X)
Sulfur Dioxide	()	Nitrogen Oxides (X)
Volatile Organic Compounds (X)		Visible Emissions ()

14. Unless otherwise stated in this Air Permit or an applicable regulation, the Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless otherwise specified in a subject regulation or an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
19. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
20. In accordance with ADEM Admin. Code. r. 335-3-4-.01(1), any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20%

in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity shall be determined by 40 CFR Part 60, Appendix A, Method 9.

21. Should this engine exceed any emission standard or operational limitation, at any time, the permittee shall notify the Air Division within two working days of determining that the exceedance occurred.
22. This unit is subject to the applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Title V-Synthetic Minor Source Requirements

23. The permittee shall not cause or allow carbon monoxide (CO) emissions from this engine to exceed 3.04 lb/hr as measured by EPA Reference Method 10. Alternate methods may be used provided prior approval is granted by the Air Division.
24. The permittee shall not cause or allow formaldehyde (CH₂O) emissions from this engine to exceed 0.294 lb/hr as measured by EPA Reference Method 323. Alternate methods may be used provided prior approval is granted by the Air Division.
25. This unit shall be equipped and operated at all times with the catalytic converter in order to comply with the applicable emission limits of this permit. The permittee shall not operate the engine without an active catalyst installed.
26. The permittee shall conduct an initial performance test for CO using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup to demonstrate compliance with the applicable emission limits.
27. Subsequent emission testing shall be conducted for CO utilizing a portable analyzer in accordance with a protocol/method approved by the Air Division. The testing shall be conducted every six months alternatively with the required NSPS, 40 CFR 60, Subpart JJJJ testing.
28. The permittee shall submit the results of each subsequent portable analyzer test to the Air Division within 60 days after the test has been completed;
29. The permittee shall maintain records of all emission monitoring and emission-related maintenance conducted in this unit. These records shall be maintained in an electronic or hardcopy format and be readily available for inspection upon request.

NSPS Requirements

30. This unit is subject to the applicable requirements of 40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and the

applicable requirements of 40 CFR 60, Subpart A, General Provisions. The applicable requirements include, **but may not be limited to:**

- a. The permittee shall not cause or allow emissions from this engine to exceed 1.0 g/Hp-hr or 82 ppmvd at 15% O₂ of NO_x; 2.0 g/Hp-hr or 270 ppmvd at 15% O₂ of CO; and/or 0.7 g/Hp-hr or 60 ppmvd at 15% O₂ of VOC as measured by the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division [*§60.4233(e)*];
- b. The permittee shall submit notifications as to the date construction is commenced on this engine postmarked no later than 30 days after such date and the actual date of initial startup of this engine postmarked within 15 days after such date [*§60.7(a)(1) and (3)*];
- c. The permittee shall maintain a maintenance plan on file, records of all maintenance conducted on this engine, and to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emission. These records shall be maintained on site for a period of two years and made available for inspection upon request [*§60.4243(b)(2)(ii)*];
- d. The permittee shall conduct an initial performance test and subsequent performance testing every 8,760 hours of operation of this engine or every three years, whichever comes first using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup while operating within 10% of 100% peak (or the highest achievable) load, to demonstrate compliance with the applicable NO_x, CO, and VOC standards [*§60.4243(b)(2)(ii)*];
- e. The permittee shall notify the Air Division in writing at least 30 days in advance of all performance tests to be conducted and submitted as proof of compliance with the applicable emission standards specified in 40 CFR 60, Subpart JJJJ. [*§60.8(d)*];
- f. The permittee shall submit the results of each performance test within 60 days after the test has been completed [*§60.4245(d)*];
- g. The permittee shall maintain the applicable records specified in *§60.4245(a)*, which include, but may not be limited to the following:
 - i. All notifications submitted to comply with this subpart and all documentation supporting any notification,
 - ii. Maintenance conducted on the engine, and
 - iii. Documentation that the engine meets the emission standards.

Date

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: EXTERRAN ENERGY SOLUTIONS, L.P.
FACILITY NAME: WHITSON COMPRESSOR STATION
LOCATION: WHITSON, TUSCALOOSA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
413-0086-X013	1,380 Hp Caterpillar G3516B, 4-Stroke, Lean-Burn, Natural Gas-fired Reciprocating Engine with an Oxidizing Catalytic Converter (NSPS, Subpart JJJJ)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE:

**EXTERRAN ENERGY SOLUTIONS, LP
WHITSON COMPRESSOR STATION
TUSCALOOSA COUNTY, ALABAMA
PERMIT NO. 413-0086-X013
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. Each point of emission will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
5. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shutdown shall be reported to the Department at least 24 hours prior to the planned shutdown, unless accompanied by the immediate shutdown of the emission source.
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants.

Particulates	()	Carbon Monoxide (X)
Sulfur Dioxide	()	Nitrogen Oxides (X)
Volatile Organic Compounds (X)		Visible Emissions ()

14. Unless otherwise stated in this Air Permit or an applicable regulation, the Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless otherwise specified in a subject regulation or an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
19. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
20. In accordance with ADEM Admin. Code. r. 335-3-4-.01(1), any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20%

in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity shall be determined by 40 CFR Part 60, Appendix A, Method 9.

21. Should this engine exceed any emission standard or operational limitation, at any time, the permittee shall notify the Air Division within two working days of determining that the exceedance occurred.
22. This unit is subject to the applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Title V-Synthetic Minor Source Requirements

23. The permittee shall not cause or allow carbon monoxide (CO) emissions from this engine to exceed 3.04 lb/hr as measured by EPA Reference Method 10. Alternate methods may be used provided prior approval is granted by the Air Division.
24. The permittee shall not cause or allow formaldehyde (CH₂O) emissions from this engine to exceed 0.294 lb/hr as measured by EPA Reference Method 323. Alternate methods may be used provided prior approval is granted by the Air Division.
25. This unit shall be equipped and operated at all times with the catalytic converter in order to comply with the applicable emission limits of this permit. The permittee shall not operate the engine without an active catalyst installed.
26. The permittee shall conduct an initial performance test for CO using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup to demonstrate compliance with the applicable emission limits.
27. Subsequent emission testing shall be conducted for CO utilizing a portable analyzer in accordance with a protocol/method approved by the Air Division. The testing shall be conducted every six months alternatively with the required NSPS, 40 CFR 60, Subpart JJJJ testing.
28. The permittee shall submit the results of each subsequent portable analyzer test to the Air Division within 60 days after the test has been completed;
29. The permittee shall maintain records of all emission monitoring and emission-related maintenance conducted in this unit. These records shall be maintained in an electronic or hardcopy format and be readily available for inspection upon request.

NSPS Requirements

30. This unit is subject to the applicable requirements of 40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and the

applicable requirements of 40 CFR 60, Subpart A, General Provisions. The applicable requirements include, **but may not be limited to:**

- a. The permittee shall not cause or allow emissions from this engine to exceed 1.0 g/Hp-hr or 82 ppmvd at 15% O₂ of NO_x; 2.0 g/Hp-hr or 270 ppmvd at 15% O₂ of CO; and/or 0.7 g/Hp-hr or 60 ppmvd at 15% O₂ of VOC as measured by the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division [*§60.4233(e)*];
- b. The permittee shall submit notifications as to the date construction is commenced on this engine postmarked no later than 30 days after such date and the actual date of initial startup of this engine postmarked within 15 days after such date [*§60.7(a)(1) and (3)*];
- c. The permittee shall maintain a maintenance plan on file, records of all maintenance conducted on this engine, and to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emission. These records shall be maintained on site for a period of two years and made available for inspection upon request [*§60.4243(b)(2)(ii)*];
- d. The permittee shall conduct an initial performance test and subsequent performance testing every 8,760 hours of operation of this engine or every three years, whichever comes first using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup while operating within 10% of 100% peak (or the highest achievable) load, to demonstrate compliance with the applicable NO_x, CO, and VOC standards [*§60.4243(b)(2)(ii)*];
- e. The permittee shall notify the Air Division in writing at least 30 days in advance of all performance tests to be conducted and submitted as proof of compliance with the applicable emission standards specified in 40 CFR 60, Subpart JJJJ. [*§60.8(d)*];
- f. The permittee shall submit the results of each performance test within 60 days after the test has been completed [*§60.4245(d)*];
- g. The permittee shall maintain the applicable records specified in *§60.4245(a)*, which include, but may not be limited to the following:
 - i. All notifications submitted to comply with this subpart and all documentation supporting any notification,
 - ii. Maintenance conducted on the engine, and
 - iii. Documentation that the engine meets the emission standards.

Date

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: EXTERRAN ENERGY SOLUTIONS, L.P.
FACILITY NAME: WHITSON COMPRESSOR STATION
LOCATION: WHITSON, TUSCALOOSA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
413-0086-X014	1,380 Hp Caterpillar G3516B, 4-Stroke, Lean-Burn, Natural Gas-fired Reciprocating Engine with an Oxidizing Catalytic Converter (NSPS, Subpart JJJJ)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE:

**EXTERRAN ENERGY SOLUTIONS, LP
WHITSON COMPRESSOR STATION
TUSCALOOSA COUNTY, ALABAMA
PERMIT NO. 413-0086-X014
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. Each point of emission will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
5. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shutdown shall be reported to the Department at least 24 hours prior to the planned shutdown, unless accompanied by the immediate shutdown of the emission source.
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants.

Particulates	()	Carbon Monoxide (X)
Sulfur Dioxide	()	Nitrogen Oxides (X)
Volatile Organic Compounds (X)		Visible Emissions ()

14. Unless otherwise stated in this Air Permit or an applicable regulation, the Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless otherwise specified in a subject regulation or an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
19. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
20. In accordance with ADEM Admin. Code. r. 335-3-4-.01(1), any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20%

in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity shall be determined by 40 CFR Part 60, Appendix A, Method 9.

21. Should this engine exceed any emission standard or operational limitation, at any time, the permittee shall notify the Air Division within two working days of determining that the exceedance occurred.
22. This unit is subject to the applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Title V-Synthetic Minor Source Requirements

23. The permittee shall not cause or allow carbon monoxide (CO) emissions from this engine to exceed 3.04 lb/hr as measured by EPA Reference Method 10. Alternate methods may be used provided prior approval is granted by the Air Division.
24. The permittee shall not cause or allow formaldehyde (CH₂O) emissions from this engine to exceed 0.294 lb/hr as measured by EPA Reference Method 323. Alternate methods may be used provided prior approval is granted by the Air Division.
25. This unit shall be equipped and operated at all times with the catalytic converter in order to comply with the applicable emission limits of this permit. The permittee shall not operate the engine without an active catalyst installed.
26. The permittee shall conduct an initial performance test for CO using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup to demonstrate compliance with the applicable emission limits.
27. Subsequent emission testing shall be conducted for CO utilizing a portable analyzer in accordance with a protocol/method approved by the Air Division. The testing shall be conducted every six months alternatively with the required NSPS, 40 CFR 60, Subpart JJJJ testing.
28. The permittee shall submit the results of each subsequent portable analyzer test to the Air Division within 60 days after the test has been completed;
29. The permittee shall maintain records of all emission monitoring and emission-related maintenance conducted in this unit. These records shall be maintained in an electronic or hardcopy format and be readily available for inspection upon request.

NSPS Requirements

30. This unit is subject to the applicable requirements of 40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and the

applicable requirements of 40 CFR 60, Subpart A, General Provisions. The applicable requirements include, **but may not be limited to:**

- a. The permittee shall not cause or allow emissions from this engine to exceed 1.0 g/Hp-hr or 82 ppmvd at 15% O₂ of NO_x; 2.0 g/Hp-hr or 270 ppmvd at 15% O₂ of CO; and/or 0.7 g/Hp-hr or 60 ppmvd at 15% O₂ of VOC as measured by the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division [*§60.4233(e)*];
- b. The permittee shall submit notifications as to the date construction is commenced on this engine postmarked no later than 30 days after such date and the actual date of initial startup of this engine postmarked within 15 days after such date [*§60.7(a)(1) and (3)*];
- c. The permittee shall maintain a maintenance plan on file, records of all maintenance conducted on this engine, and to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emission. These records shall be maintained on site for a period of two years and made available for inspection upon request [*§60.4243(b)(2)(ii)*];
- d. The permittee shall conduct an initial performance test and subsequent performance testing every 8,760 hours of operation of this engine or every three years, whichever comes first using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup while operating within 10% of 100% peak (or the highest achievable) load, to demonstrate compliance with the applicable NO_x, CO, and VOC standards [*§60.4243(b)(2)(ii)*];
- e. The permittee shall notify the Air Division in writing at least 30 days in advance of all performance tests to be conducted and submitted as proof of compliance with the applicable emission standards specified in 40 CFR 60, Subpart JJJJ. [*§60.8(d)*];
- f. The permittee shall submit the results of each performance test within 60 days after the test has been completed [*§60.4245(d)*];
- g. The permittee shall maintain the applicable records specified in *§60.4245(a)*, which include, but may not be limited to the following:
 - i. All notifications submitted to comply with this subpart and all documentation supporting any notification,
 - ii. Maintenance conducted on the engine, and
 - iii. Documentation that the engine meets the emission standards.

Date

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: EXTERRAN ENERGY SOLUTIONS, L.P.
FACILITY NAME: WHITSON COMPRESSOR STATION
LOCATION: WHITSON, TUSCALOOSA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
413-0086-X015	1,380 Hp Caterpillar G3516B, 4-Stroke, Lean-Burn, Natural Gas-fired Reciprocating Engine with an Oxidizing Catalytic Converter (NSPS, Subpart JJJJ)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE:

**EXTERRAN ENERGY SOLUTIONS, LP
WHITSON COMPRESSOR STATION
TUSCALOOSA COUNTY, ALABAMA
PERMIT NO. 413-0086-X015
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. Each point of emission will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
5. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shutdown shall be reported to the Department at least 24 hours prior to the planned shutdown, unless accompanied by the immediate shutdown of the emission source.
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants.

Particulates	()	Carbon Monoxide (X)
Sulfur Dioxide	()	Nitrogen Oxides (X)
Volatile Organic Compounds (X)		Visible Emissions ()

14. Unless otherwise stated in this Air Permit or an applicable regulation, the Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless otherwise specified in a subject regulation or an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
19. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
20. In accordance with ADEM Admin. Code. r. 335-3-4-.01(1), any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20%

in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity shall be determined by 40 CFR Part 60, Appendix A, Method 9.

21. Should this engine exceed any emission standard or operational limitation, at any time, the permittee shall notify the Air Division within two working days of determining that the exceedance occurred.
22. This unit is subject to the applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Title V-Synthetic Minor Source Requirements

23. The permittee shall not cause or allow carbon monoxide (CO) emissions from this engine to exceed 3.04 lb/hr as measured by EPA Reference Method 10. Alternate methods may be used provided prior approval is granted by the Air Division.
24. The permittee shall not cause or allow formaldehyde (CH₂O) emissions from this engine to exceed 0.294 lb/hr as measured by EPA Reference Method 323. Alternate methods may be used provided prior approval is granted by the Air Division.
25. This unit shall be equipped and operated at all times with the catalytic converter in order to comply with the applicable emission limits of this permit. The permittee shall not operate the engine without an active catalyst installed.
26. The permittee shall conduct an initial performance test for CO using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup to demonstrate compliance with the applicable emission limits.
27. Subsequent emission testing shall be conducted for CO utilizing a portable analyzer in accordance with a protocol/method approved by the Air Division. The testing shall be conducted every six months alternatively with the required NSPS, 40 CFR 60, Subpart JJJJ testing.
28. The permittee shall submit the results of each subsequent portable analyzer test to the Air Division within 60 days after the test has been completed;
29. The permittee shall maintain records of all emission monitoring and emission-related maintenance conducted in this unit. These records shall be maintained in an electronic or hardcopy format and be readily available for inspection upon request.

NSPS Requirements

30. This unit is subject to the applicable requirements of 40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and the

applicable requirements of 40 CFR 60, Subpart A, General Provisions. The applicable requirements include, **but may not be limited to:**

- a. The permittee shall not cause or allow emissions from this engine to exceed 1.0 g/Hp-hr or 82 ppmvd at 15% O₂ of NO_x; 2.0 g/Hp-hr or 270 ppmvd at 15% O₂ of CO; and/or 0.7 g/Hp-hr or 60 ppmvd at 15% O₂ of VOC as measured by the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division [*§60.4233(e)*];
- b. The permittee shall submit notifications as to the date construction is commenced on this engine postmarked no later than 30 days after such date and the actual date of initial startup of this engine postmarked within 15 days after such date [*§60.7(a)(1) and (3)*];
- c. The permittee shall maintain a maintenance plan on file, records of all maintenance conducted on this engine, and to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emission. These records shall be maintained on site for a period of two years and made available for inspection upon request [*§60.4243(b)(2)(ii)*];
- d. The permittee shall conduct an initial performance test and subsequent performance testing every 8,760 hours of operation of this engine or every three years, whichever comes first using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup while operating within 10% of 100% peak (or the highest achievable) load, to demonstrate compliance with the applicable NO_x, CO, and VOC standards [*§60.4243(b)(2)(ii)*];
- e. The permittee shall notify the Air Division in writing at least 30 days in advance of all performance tests to be conducted and submitted as proof of compliance with the applicable emission standards specified in 40 CFR 60, Subpart JJJJ. [*§60.8(d)*];
- f. The permittee shall submit the results of each performance test within 60 days after the test has been completed [*§60.4245(d)*];
- g. The permittee shall maintain the applicable records specified in *§60.4245(a)*, which include, but may not be limited to the following:
 - i. All notifications submitted to comply with this subpart and all documentation supporting any notification,
 - ii. Maintenance conducted on the engine, and
 - iii. Documentation that the engine meets the emission standards.

Date

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: EXTERRAN ENERGY SOLUTIONS, L.P.
FACILITY NAME: WHITSON COMPRESSOR STATION
LOCATION: WHITSON, TUSCALOOSA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
413-0086-X016	1,380 Hp Caterpillar G3516B, 4-Stroke, Lean-Burn, Natural Gas-fired Reciprocating Engine with an Oxidizing Catalytic Converter (NSPS, Subpart JJJJ)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE:

**EXTERRAN ENERGY SOLUTIONS, LP
WHITSON COMPRESSOR STATION
TUSCALOOSA COUNTY, ALABAMA
PERMIT NO. 413-0086-X016
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. Each point of emission will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
5. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shutdown shall be reported to the Department at least 24 hours prior to the planned shutdown, unless accompanied by the immediate shutdown of the emission source.
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants.

Particulates	()	Carbon Monoxide (X)
Sulfur Dioxide	()	Nitrogen Oxides (X)
Volatile Organic Compounds (X)		Visible Emissions ()

14. Unless otherwise stated in this Air Permit or an applicable regulation, the Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless otherwise specified in a subject regulation or an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
19. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
20. In accordance with ADEM Admin. Code. r. 335-3-4-.01(1), any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20%

in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity shall be determined by 40 CFR Part 60, Appendix A, Method 9.

21. Should this engine exceed any emission standard or operational limitation, at any time, the permittee shall notify the Air Division within two working days of determining that the exceedance occurred.
22. This unit is subject to the applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Title V-Synthetic Minor Source Requirements

23. The permittee shall not cause or allow carbon monoxide (CO) emissions from this engine to exceed 3.04 lb/hr as measured by EPA Reference Method 10. Alternate methods may be used provided prior approval is granted by the Air Division.
24. The permittee shall not cause or allow formaldehyde (CH₂O) emissions from this engine to exceed 0.294 lb/hr as measured by EPA Reference Method 323. Alternate methods may be used provided prior approval is granted by the Air Division.
25. This unit shall be equipped and operated at all times with the catalytic converter in order to comply with the applicable emission limits of this permit. The permittee shall not operate the engine without an active catalyst installed.
26. The permittee shall conduct an initial performance test for CO using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup to demonstrate compliance with the applicable emission limits.
27. Subsequent emission testing shall be conducted for CO utilizing a portable analyzer in accordance with a protocol/method approved by the Air Division. The testing shall be conducted every six months alternatively with the required NSPS, 40 CFR 60, Subpart JJJJ testing.
28. The permittee shall submit the results of each subsequent portable analyzer test to the Air Division within 60 days after the test has been completed;
29. The permittee shall maintain records of all emission monitoring and emission-related maintenance conducted in this unit. These records shall be maintained in an electronic or hardcopy format and be readily available for inspection upon request.

NSPS Requirements

30. This unit is subject to the applicable requirements of 40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and the

applicable requirements of 40 CFR 60, Subpart A, General Provisions. The applicable requirements include, **but may not be limited to:**

- a. The permittee shall not cause or allow emissions from this engine to exceed 1.0 g/Hp-hr or 82 ppmvd at 15% O₂ of NO_x; 2.0 g/Hp-hr or 270 ppmvd at 15% O₂ of CO; and/or 0.7 g/Hp-hr or 60 ppmvd at 15% O₂ of VOC as measured by the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division [*§60.4233(e)*];
- b. The permittee shall submit notifications as to the date construction is commenced on this engine postmarked no later than 30 days after such date and the actual date of initial startup of this engine postmarked within 15 days after such date [*§60.7(a)(1) and (3)*];
- c. The permittee shall maintain a maintenance plan on file, records of all maintenance conducted on this engine, and to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emission. These records shall be maintained on site for a period of two years and made available for inspection upon request [*§60.4243(b)(2)(ii)*];
- d. The permittee shall conduct an initial performance test and subsequent performance testing every 8,760 hours of operation of this engine or every three years, whichever comes first using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup while operating within 10% of 100% peak (or the highest achievable) load, to demonstrate compliance with the applicable NO_x, CO, and VOC standards [*§60.4243(b)(2)(ii)*];
- e. The permittee shall notify the Air Division in writing at least 30 days in advance of all performance tests to be conducted and submitted as proof of compliance with the applicable emission standards specified in 40 CFR 60, Subpart JJJJ. [*§60.8(d)*];
- f. The permittee shall submit the results of each performance test within 60 days after the test has been completed [*§60.4245(d)*];
- g. The permittee shall maintain the applicable records specified in *§60.4245(a)*, which include, but may not be limited to the following:
 - i. All notifications submitted to comply with this subpart and all documentation supporting any notification,
 - ii. Maintenance conducted on the engine, and
 - iii. Documentation that the engine meets the emission standards.

Date

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: EXTERRAN ENERGY SOLUTIONS, L.P.
FACILITY NAME: WHITSON COMPRESSOR STATION
LOCATION: WHITSON, TUSCALOOSA COUNTY, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
413-0086-X017	1,380 Hp Caterpillar G3516B, 4-Stroke, Lean-Burn, Natural Gas-fired Reciprocating Engine with an Oxidizing Catalytic Converter (NSPS, Subpart JJJJ)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code §§22-28-1 to 22-28-23 (2006 Rplc. Vol and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code §§22-22A-1 to 22-22A-15 (2006 Rplc. Vol and 2007 Cum. Supp.), and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE:

**EXTERRAN ENERGY SOLUTIONS, LP
WHITSON COMPRESSOR STATION
TUSCALOOSA COUNTY, ALABAMA
PERMIT NO. 413-0086-X017
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. Each point of emission will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
5. In case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than **1 hour**, the intent to shutdown shall be reported to the Department at least 24 hours prior to the planned shutdown, unless accompanied by the immediate shutdown of the emission source.
6. In the event there is a breakdown of equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants.

Particulates	()	Carbon Monoxide (X)
Sulfur Dioxide	()	Nitrogen Oxides (X)
Volatile Organic Compounds (X)		Visible Emissions ()

14. Unless otherwise stated in this Air Permit or an applicable regulation, the Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless otherwise specified in a subject regulation or an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
19. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
20. In accordance with ADEM Admin. Code. r. 335-3-4-.01(1), any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20%

in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity shall be determined by 40 CFR Part 60, Appendix A, Method 9.

21. Should this engine exceed any emission standard or operational limitation, at any time, the permittee shall notify the Air Division within two working days of determining that the exceedance occurred.
22. This unit is subject to the applicable requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Title V-Synthetic Minor Source Requirements

23. The permittee shall not cause or allow carbon monoxide (CO) emissions from this engine to exceed 3.04 lb/hr as measured by EPA Reference Method 10. Alternate methods may be used provided prior approval is granted by the Air Division.
24. The permittee shall not cause or allow formaldehyde (CH₂O) emissions from this engine to exceed 0.294 lb/hr as measured by EPA Reference Method 323. Alternate methods may be used provided prior approval is granted by the Air Division.
25. This unit shall be equipped and operated at all times with the catalytic converter in order to comply with the applicable emission limits of this permit. The permittee shall not operate the engine without an active catalyst installed.
26. The permittee shall conduct an initial performance test for CO using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup to demonstrate compliance with the applicable emission limits.
27. Subsequent emission testing shall be conducted for CO utilizing a portable analyzer in accordance with a protocol/method approved by the Air Division. The testing shall be conducted every six months alternatively with the required NSPS, 40 CFR 60, Subpart JJJJ testing.
28. The permittee shall submit the results of each subsequent portable analyzer test to the Air Division within 60 days after the test has been completed;
29. The permittee shall maintain records of all emission monitoring and emission-related maintenance conducted in this unit. These records shall be maintained in an electronic or hardcopy format and be readily available for inspection upon request.

NSPS Requirements

30. This unit is subject to the applicable requirements of 40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and the

applicable requirements of 40 CFR 60, Subpart A, General Provisions. The applicable requirements include, **but may not be limited to:**

- a. The permittee shall not cause or allow emissions from this engine to exceed 1.0 g/Hp-hr or 82 ppmvd at 15% O₂ of NO_x; 2.0 g/Hp-hr or 270 ppmvd at 15% O₂ of CO; and/or 0.7 g/Hp-hr or 60 ppmvd at 15% O₂ of VOC as measured by the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division [*§60.4233(e)*];
- b. The permittee shall submit notifications as to the date construction is commenced on this engine postmarked no later than 30 days after such date and the actual date of initial startup of this engine postmarked within 15 days after such date [*§60.7(a)(1) and (3)*];
- c. The permittee shall maintain a maintenance plan on file, records of all maintenance conducted on this engine, and to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emission. These records shall be maintained on site for a period of two years and made available for inspection upon request [*§60.4243(b)(2)(ii)*];
- d. The permittee shall conduct an initial performance test and subsequent performance testing every 8,760 hours of operation of this engine or every three years, whichever comes first using the appropriate EPA Reference Method or an alternative method approved in advance by the Air Division within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup while operating within 10% of 100% peak (or the highest achievable) load, to demonstrate compliance with the applicable NO_x, CO, and VOC standards [*§60.4243(b)(2)(ii)*];
- e. The permittee shall notify the Air Division in writing at least 30 days in advance of all performance tests to be conducted and submitted as proof of compliance with the applicable emission standards specified in 40 CFR 60, Subpart JJJJ. [*§60.8(d)*];
- f. The permittee shall submit the results of each performance test within 60 days after the test has been completed [*§60.4245(d)*];
- g. The permittee shall maintain the applicable records specified in *§60.4245(a)*, which include, but may not be limited to the following:
 - i. All notifications submitted to comply with this subpart and all documentation supporting any notification,
 - ii. Maintenance conducted on the engine, and
 - iii. Documentation that the engine meets the emission standards.

Date